

CLAIMS:

1. A memory device (10, 30, 50) comprising
 - a) a memory (12, 32, 56) having a plurality of low-latency, rewritable, non-volatile memory cells forming at least one memory section,
 - b) a profile storage unit (20, 36, 60) connected with said memory and comprising
5 access information allocated to at least one set of request information elements (hereinafter request profile), such that said access information indicates whether a request for access to said memory (12, 32, 56) (hereinafter access request), said access request having said request profile, is to be allowed or rejected,
 - c) an access control unit (22, 36, 60) communicating with said profile storage
10 unit and said memory, and adapted to allow or reject an incoming access request in dependence on the access information allocated to the request profile of the access request.
2. The memory device of claim 1, wherein said set of request information
15 elements comprises at least one request information element indicating a type of request, an external memory client from which the request originates, a memory section the request is directed to, an access authorization, a password, a request protocol type, a time of request, an interface receiving the request, the length of the request, time span lapsed since a last request, a security class, or a priority class.
- 20 3. The memory device of claim 1, comprising a plurality of interfaces (52, 54) for communication with external memory clients and/or for communication according to different memory uses, each interface being connected with said access control unit (22, 36, 60) and allocated to a set of request profiles.
- 25 4. The memory device of claim 3, wherein at least one of said interfaces is implemented in the form of hardware.
5. The memory device of claim 3 or 4, wherein at least one of said interfaces is implemented in the form of software.

6. The memory device of claim 4 or 5, comprising an SRAM-type interface (52) adapted to serve separate connections for address data input and user data exchange, respectively, between the memory device and at least one external memory client.

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7. The memory device of claim 5 or 6, comprising an I/O-type interface (54) adapted to serve a shared connection for address data input and user data exchange between the memory device (50) and at least one external memory client.

10 8. The memory device of claim 1, comprising a supervisor interface adapted to create or change at least one request profile and/or access information allocated thereto, given a predetermined condition.

15 9. The memory device of claim 8, wherein said supervisor interface is adapted to admit or reject external requests for change of a request profile, depending on access information allocated to at least one predetermined change request profile.

20 10. The memory device of claim 3, wherein said profile storage unit (20, 36, 60) comprises a set of access flags, each access flag allocated to a respective request profile, and wherein said access information is given by one of two possible states of an access flag.

11. The memory device of claim 1, wherein said profile storage unit is integrated into said access control unit (36, 60).

25 12. The memory device of claim 1, wherein said access control unit (22, 36, 60) is adapted to maintain a current copy of said profile storage unit (20, 36, 60) in a predetermined section of said memory.

13. The memory device of claim 1, comprising a translation unit adapted to translate between one or more different ways of memory addressing.